Issue: TIH Tank Car Safety
By: Robert Fronczak, Association of American Railroads

There were three railroad accidents involving TIH in recent years causing 16 fatalities. The accidents include:

1. Minot, ND (1/18/02) involving anhydrous ammonia resulting in one fatality.
2. Macdona, TX (7/28/04) involving chlorine resulting in three fatalities.
3. Graniteville, SC (1/6/05) involving chlorine resulting in 9 fatalities.

As a result, Tank Car Committee developed a standard to improve the crashworthiness of tank cars carrying TIH by approximately 65%. A final standard for all TIH was implemented for cars constructed after April 30, 2008. Subsequently, DOT initiated a rulemaking to improve the safety of TIH tank cars. It has become apparent that the technology to meet the DOT standard has not yet been developed. DOT proposed a standard that would require technology that has not yet been developed.

An important aspect of the DOT proposal was that existing cars would have to be phased out within eight years of publication of the final rule. With a potential phase out requirement looming shippers and tank car builders are reluctant to invest in new tank cars. As a result, a shortage of tank cars looms. In addition, the lack of new orders for tank cars means that the DOT rulemaking proceeding has actually had the effect of impeding the upgrading of tank cars used for TIH transportation.

Faced with this dilemma over the supply of new tank cars, AAR, the American Chemistry Council, American Short Line and Regional Railroad Association, Chlorine Institute, and Railway Supply Institute petitioned DOT to immediately adopt an "interim" tank car standard in anticipation of DOT issuing a subsequent final rule. Under the proposed interim standard, DOT would allow tank cars built to AAR's standard to transport TIH materials for 25 years, notwithstanding any standard DOT might subsequently adopt. AAR understands that DOT has sent a rule addressing the petition to OMB, but that there is doubt OMB will release the final rulemaking during this administration.

From a longer term perspective, industry has been investigating new concepts for tank cars used for TIH transportation. Dow Chemical Union Pacific Railroad and Union Tank Car initiated the Next Generation Tank Car (NGTC) project, which conducted research on improving the ability of a tank car to resist impact forces in a derailment by 5-10 times. Subsequent to the NGTC Project, AAR and Dow Chemical have been developing the concept of an Advanced Tank Car Collaborative Research Program to build upon the NGTC research developed ultimately for use in developing DOT tank car standards. AAR and Dow have estimated it would take a 5 - 10 year government - industry funded research project to bring this to fruition.

In summary, it is important that a final rule action on the petition submitted to DOT be issued in the near future. If this Administration fails to act, the next Administration should take issuance of the rule as a priority. Finally, DOT should commit to funding the government portion of the research proposed to take tank car safety to the next level.